Scientific and Citizen Forum on the Genetic Effects of Ionizing Radiation 29 November 2014 Geneva (Switzerland)

Biographical notes on speakers

Dr Inge Schmitz-Feuerhake was a professor in experimental physics at the University of Bremen (Germany) from 1973 and until her retirement in 2000. Her research has assessed the biological effects of ionizing radiation at low dosage levels, as well as the diagnostic use of nuclear radiation. Her work made a major contribution to the development of biological dosimetry methods in which changes to the chromosomes in white blood cells are measured with extreme precision, by making it possible to count the concerned white blood cells under the microscope. She wrote of her scientific findings in comprehensible language, so that they can be understood by colleagues from related disciplines and interested laypeople. Dr Schmitz-Feuerhake became known in Germany since 1990 for examining the rise of the number of children suffering leukemia in the surroundings of the Krümmel Nuclear Power Plant. In 2003 she received the Nuclear-Free Future Award for her lifetime achievement. She is also chairman of the European Committee on Radiation Risk, and vice president of *Gesellschaft für Strahlenschutz e.V.* (German Society for Radiation Protection).

Dr Yuri Dubrova, professor of genetics at the University of Leicester (UK), was born in Kiev (Ukraine). He obtained a BSc degree in Biology at Kiev State University and a PhD in Genetics Vavilov Institute of General Genetics in Moscow, where he undertook a number of research projects in population genetics. In 1994 he moved to the Department of Genetics, University of Leicester, to study the genetic effects of exposure to ionising radiation and chemical mutagens in mammals. Professor Yuri Dubrova's research interests focus on the analysis of germline mutation induction in humans and mice following exposure to ionising radiation, chemical mutagens and some anticancer drugs. His recent research has also involved transgenerational genomic instability manifesting in the offspring of exposed parents. He is the author of more than 110 peer-reviewed publications in his field.

Dr Wladimir Wertelecki is President of the Board of the OMNI-Net Ukraine Child Development Programmes, a group that has done extensive studies into congenital malformations in the Polissia region in Rivne, Ukraine. Polissia is one of the most affected regions by the Chornobyl disaster. He is adjunct Professor at the Dysmorphology Division of the University of California in San Diego and at the Graduate Program in Biomedical Anthropology of the New York State University in Binghamton. Dr Wertelecki was born in Poland and is fluent in languages of regions impacted by the 1986 Chornobyl disaster. Largely educated in Switzerland and Argentina, where he obtained his medical degree from the University of Buenos Aires, he trained in Pediatrics at the Saint Louis Children's Hospital of the Harvard School of Medicine. Dr Wertelecki was Chair of the Department of Medical Genetics and Birth Defects, University of South Alabama, from 1974 to 2010. His major areas of interest include medical genetics, human handicaps, and pediatrics. He has organized many conferences dealing with genetics and birth defects, as well as public health and other issues. He is the recipient of numerous awards and the author of more than 250 articles and abstracts.

Dr Keith Baverstock is currently a docent in the Faculty of Natural and Environmental Sciences of the University of Kuopio, Finland, where he lectures and researches on the effects of ionising radiation. Dr Baverstock, a graduate of London University, led the Radiation Protection Programme at the World Health Organisation's Regional Office for Europe from

1991 to 2003. From 1998 to 2002 he set-up a dedicated project office in Helsinki for nuclear emergencies and public health and in 2002 he transferred to the WHO's European Centre for Environment and Health located in Bonn where he was the Regional Advisor for Radiation and Public Health. The WHO's radiation programme was instrumental in bringing to world attention the increase in thyroid cancer in Belarus, now attributed to the Chernobyl accident. In 2001 he was a member of a UN mission charged with making a situation analysis on the Chernobyl affected regions of Belarus, Russia and Ukraine. The mission report "The human consequences of the Chernobyl accident: a strategy for recovery" was published by the UN in 2002. From November 2003 to April 2005 he served on the UK Committee for Radioactive Waste Management (CoRWM). Currently he is a partner in the European commission funded ARCH project the objective of which is to develop a strategic research agenda for the health effects of the Chernobyl accident. His current research interests are in the dynamical aspects of the process by which ionising radiation and other environmental agents cause genomic instability and cancer, the effects on human health of low doses of ionising radiation and the psychosocial aspects of exposure to ionising radiation.

Dr Timothy Mousseau has been a member of the faculty of the Department of Biological Sciences at the University of South Carolina since 1991. He received his doctoral degree in 1988 from McGill University and completed a NSERC (Canada) postdoctoral fellowship in Population Biology at the University of California, Davis. At USC Dr Mousseau and his students have worked on a wide diversity of organisms, from bacteria to beetles to birds, and his primary areas of research interest include the genetic basis of adaptation in natural populations. Since 1999, Professor Mousseau and his collaborators have explored the ecological, genetic and evolutionary consequences of low-dose radiation in populations of plants, animals and people inhabiting the Chernobyl region of Ukraine and Belarus. He recently initiated a second research program in Fukushima, Japan. His research suggests that many species of plants and animals experience increased mutational loads as a result of exposure to radionuclides stemming from the Chernobyl disaster. In some species (e.g. the barn swallow, Hirundo rustica), this mutational load has had dramatic consequences for reproduction and survival. Dr. Mousseau's current research is aimed at accurately assessing doses received by animals living in the wild and elucidating the causes of variation among different species in their apparent sensitivity to radionuclide exposure.

Chiyo Nohara is a member of a team from the BCPH Unit of Molecular Physiology, Department of Chemistry, Biology and Marine Science, Faculty of Science at the University of the Ryukus in Okinawa (Japan) which has evaluated the effects of the Fukushima nuclear accident on the pale grass blue butterfly *Zizeeria maha*, the most common butterfly in Japan. Their findings imply transgenerational accumulation of genetic damage. Before moving to Okinawa Ms Nohara was lecturer on government auditing and later associate professor in business administration at Aichi Toho University, 1993-2005; associate professor in business administration at Aichi University, 2005-2009; former member of the Evaluation Committee for Incorporated Administrative Agencies at the Ministry of Land, Infrastructure, Transport and Tourism; former member of the Public Sector Evaluation Committee of Nagoya city, Tokai city and Mie prefecture.